OIPE 429.

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RUBAHEN A A L	ITTAL E		Application No.	10/7	50,549	
TRANSMITTAL FORM			Filing Date	Dece	ember 31, 2003	
(to be used for all	(to be used for all correspondence after initial filing)			First Named Inventor	Sum	eet Sandhu
				Art Unit	2664	1
				Examiner Name	СНГ	N, Wellington
Total Number of I	Pages	in This Submiss	ion 6	Attorney Docket Number	er 42P	17433
		ENCLO	SURES (chec	k all that apply)		
Fee Transmittal	Form		Drawing(s)			After Allowance Communication to TC
Fee Attached			Licensing-r	elated Papers		Appeal Communication to Board of Appeals and Interferences
Amendment / R	espon	se	Petition			Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
After Fina Affidavits		ration(s)	Petition to 0 Provisional	Convert a Application		Proprietary Information
Extension of Time Request			Power of A Change of	ttorney, Revocation Correspondence Addres	s \square	Status Letter
Express Abandonment Request			Terminal D	isclaimer		Other Enclosure(s) (please identify below):
Information Disc	Information Disclosure Statement		Request for	r Refund		return postcard Copy of ISR
PTO/SB/08			CD, Numbe	er of CD(s)		Copies of 8 cited references
Certified Copy of Priority Document(s)		rity	Landso	cape Table on CD		
Response to Mi Incomplete App	ssing lication	Parts/ n	Remarks			
	Filing			_		
	aration					
Response Parts und 1.52 or 1.	e to M der 37 .53	issing CFR				
	-	SIGNATUR	E OF APPLICAI	NT, ATTORNEY, OR	AGENT	
Firm or	Gı	regory D. Cal	dwell, Reg. No	o. 39,926		
Individual name	В	LAKELY, S	OKOKOTOTY)	TAYLOR & ZAF	MAN	LLP
Signature				•		
Date	D	ecember 6, 2	2005			
				ING/TRANSMISSION		
I hereby certify that th sufficient postage as 1450, Alexandria, VA	first cla	ass mail in an en	eing deposited wi velope addressed	th the United States Pos to: Mail Stop Amendme	tal Servi nt, Comr	ce on the date shown below with missioner for Patents, P.O. Box
Typed or printed na	ame	Gayle M. Be	kish			
Signature		(san a	~		Date	December 6, 2005



FEETRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$)

Complete if Known				
Application Number	10/750,549			
Filing Date	December 31, 2003			
First Named Inventor	Sumeet Sandhu			
Examiner Name	CHIN, Wellington			
Art Unit	2664			
Attorney Docket No.	42P17433			

METHO	OF PAY	MENT (cl	heck all	that apply)				
Check	Credit ca	ırd 🗌 M	oney Or	der None Other (please identify):				
Deposit A	Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP							
☐ Cha ∑ Cha	orge fee(s)	indicated	l below fee(s) or	ount, the Director is hereby authorized to: (check all that apply) Charge fee(s) indicated below, except for the underpayment of fee(s) Credit any overpayments 18 and 1.20.	filing fee			
FEE CALCU	LATION							
Large Er	ntity	Small	Entity					
Fee	Fee	Fee		Fee Description	Fee Paid			
Code	(\$)	Code	(\$)	r de Description	r ee Falu			
1051	130	2051	65	Surcharge - late filing fee or oath				
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.				
2053	130	2053	130	Non-English specification				
1251	120	2251	60	Extension for reply within first month				
1252	450	2252	225	Extension for reply within second month				
1253	1,020	2253	510	Extension for reply within third month				
1254	1,590	2254	795	Extension for reply within fourth month				
1255	2,160	2255	1,080	Extension for reply within fifth month				
1401	500	2401	250	Notice of Appeal				
1402	500	2402	250	Filing a brief in support of an appeal				
1403	1,000	2403	500	Request for oral hearing				
1451	1,510	2451		Petition to institute a public use proceeding				
1460	130	2460		Petitions to the Commissioner				
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)				
1806	180	1806		Submission of Information Disclosure Stmt				
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))				
1810	790	2810		For each additional invention to be examined (37 CFR § 1.129(b))				
Other fo	ee (spe	cify)						
	. (-1	, , <u> </u>		SUBTOTAL (2) (\$)				
				(2) (4)				

SUBMITTED B	<u> </u>			Comp	olete (if applicable)
Name (Print/Type)	Gregory D. Caldwell	Registration No. (Attorney/Agent)	39,926	Telephone	(503) 439-8778
Signature	LH			Date	12/06/05



Docket No.: 42P17433

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

SUMEET SANDHU

Application No.: 10/750,549

Filed: December 31, 2003

For: METHODS AND APPARATUS TO CONTROL

TRANSMISSION OF A MULTICARRIER WIRELESS COMMUNICATION CHANNEL THROUGH MULTIPLE

ANTENNAS

Art Group: 2664

Examiner: CHIN, Wellington

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In accordance with the duty of disclosure, enclosed is a copy of IDS Citation Form PTO/SB/08 or PTO-1449, together with copies of the documents cited on that form, except for copies not required to be submitted (e.g., copies of U.S. patents and U.S. published patent applications need not be enclosed). This IDS and IDS Citation Form are being submitted before the mailing of a first Office Action. It is respectfully requested that the cited references be considered and that the enclosed copy of PTO/SB/08 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

The references were cited in a Search Report dated April 1, 2005 (copy enclosed herewith) in a counterpart PCT application.

The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made in the subject application and is not to be construed as an admission that the information cited in this statement is material to patentability.

Please charge any fees due to Deposit Account 02-2666. A duplicate copy of the Fee Transmittal (PTO/SB/17) is enclosed for this purpose.

Respectfully submitted,

BLAKELY, SOKOLOFF TAYLOR & ZAFMAN LLP

Gregory D. Caldwell, Reg. No. 39,926

12400 Wilshire Boulevard, 7th Floor Los Angeles, CA 90025

Telephone: (503) 439-8778

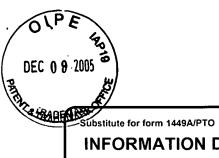
Date: December 06, 2005

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Gayle M. Bekish

Date

12-06-05



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 2

Co	emplete if Known
Application Number	10/750,549
Filing Date	December 31, 2003
First Named Inventor	Sumeet Sandhu
Art Unit	2664
Examiner Name	CHIN, Wellington
Attorney Docket Number	42P17433

	NON PATENT LITERATURE DOCUMENTS	
Examiner Cite No.'	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	YI GONG et al - "Space-frequency-time coded OFDM for broadband wireless communications" IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, 11/25/2001 pages 519-523 - XP001090309	
	QIAN MA et al - "Full diversity block diagonal codes for differential space-time-frequency coded OFDM" - IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, 12/1/2003 Pages 868-872, XP0106788446	
	WEIFENG SU et al - "Obtaining full-diversity space-frequency codes from space-time codes via mapping" - IEEE TRANSACTIONS ON SIGNAL PROCESSING - vol 51, no 11, November 2003, pages 2905-2916, XP001200809	
	ROUQUETTE et al - "orthogonal full diversity space-time block coding based on transmit channel state information for 4 Tx antennas" - IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS - 4/28/2002, pages 558-562, XP010589556	
	DIGGAVI et al - "Differential space-time coding for frequency selective channels" IEEE COMMUNICAITONS LETTERS, vol 6, no 6 June 2002, pages 253-255, XP001133259	
:	WEIFENG SU et al - "Systematic design of space-frequency codes with full rate and full diversity" IEEE WIRELESS COMMUNICATIONS AND NETWORKING CONFERENCE, 3/21/2004, pages 1436-1441, XP010708121	
	JAGANNADHA RAO et al - "Low-complexity, full-diversity space-time-frequency block codes for MIMO-OFDM" IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, 11/29/2004, pages 204-208, XP010758881	

Examiner	Date
Signature	Considered

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

^{&#}x27;Applicant's unique citation designation number.' Applicant is to place a check mark here if English language Translation is attached.

Substitute t	for form 1449A/PTO			Complete if Known		
		ueci c	CLIDE	Application Number	10/750,549	
INFU	RMATION D	13CLC	SUKE	Filing Date	December 31, 2003	
STAT	EMENT BY	APPLI	CANT	First Named Inventor	Sumeet Sandhu	
				Art Unit	2664	
		1 1		Examiner Name	CHIN, Wellington	
Sheet	2	of	2	Attorney Docket Number	42P17433	

	NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
		WEI ZHANG et al - "A design of high-rate space-frequency codes for MIMO-OFDM systems" - IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, vol 1, 11/29/2004, pages 209-213, XP010758882				

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Examiner	Date	
Signature	Considered	

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

^{&#}x27;Applicant's unique citation designation number.'Applicant is to place a check mark here if English language Translation is attached.